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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,461	03/14/2006	Michael Charles Bartlett	13058N/041750	2845
32885 7590 03/02/2010 STITES & HARBISON PLLC 401 COMMERCE STREET SUITE 800 NASHVILLE, TN 37219				
EXAMINER				
BONK, TERESA				
ART UNIT		PAPER NUMBER		
3725				
NOTIFICATION DATE		DELIVERY MODE		
03/02/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/511,461

**Applicant(s)**

BARTLETT ET AL.

**Examiner**

Teresa M. Bonk

**Art Unit**

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 30-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/200)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

Claims 30, 31, 32, 42, and 56 are objected to because of the following informalities:

On line 4 of claim 30 and line 3 of claim 56, the limitation has been amended to state “an elongate cooling medium line conduit” then, throughout the remainder of the claims variations of this limitation are found; such as, “the elongate cooling medium line,” “the cooling medium line,” and “elongate cooling medium conduit.” Consistency in these terms is needed in order to avoid lack of antecedent basis issues.

With further regards to claim 32, since “a first cooling medium line conduit” has been set forth in independent claim 30, it should be referred to as “*the* first cooling medium line *conduit*” in dependent claim 32. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 30-58 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed

invention. The subject matter that was not described in the specification is “the elongate cooling medium line conduit and elbow portion remain stationary as the housing rotates.” The specification only has support for the shaft remaining stationary – “A housing mounted for rotation about the shaft, is secured to the roll such that the housing rotates as the roll rotates whilst the shaft remains substantially stationary,” page 1, lines 12-14.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 47-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regards to claim 47, lines 4-6 and claim 48, there is insufficient antecedent basis for “the conduit.” Since Applicant has amended claim 30 for the “cooling medium line” to now state “an elongate cooling medium line,” claim 47 now actually introduces a second “conduit.”

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 30-34, 42, 43, 44, and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Hunt (US Patent 1,850,878), newly cited.**

With regards to claim 30, Hunt discloses an arrangement for cooling a roll, the arrangement comprising: a housing (32) to be secured to the roll (11), the housing mounted for rotation about a hollow shaft (48), the shaft having a length and a longitudinal axis, and an elongate cooling medium line conduit (45) extending into the roll to convey cooling medium into the roll via the interior of the shaft, the external surface of the elongate cooling medium line conduit and an internal surface of the shaft defining a cooling medium flowpath out of the roll [Page 2, lines 105-125],

the elongate cooling medium line conduit connected to an elbow portion (59), a first length of the elbow portion extending from the inlet or outlet substantially perpendicular to the longitudinal axis of the shaft and a second length of the elbow portion extending from the first length in the longitudinal direction of the axis of the shaft [see attached Figures 1 and 2 on page 6 of this Office Action], wherein the elongate cooling medium line conduit and elbow portion remain stationary as the housing rotates [Page 3, lines 43-48].

With regards to claim 31, Hunt discloses wherein the cooling medium line comprises an inlet (42).

With regards to claim 32, Hunt discloses the first cooling medium line conduit (45) to convey cooling medium into the roll (11) via the interior of the shaft, the first cooling medium line comprising an inlet (42) communicating with a first elbow portion, a first length of the first elbow portion extending from the inlet substantially perpendicular to the longitudinal axis of the shaft and a second length of the first elbow portion extending from the first length in the

direction of the longitudinal axis of the shaft, the axes of the first and second lengths being in substantially the same plane [see attached Figures 1 and 2 on page 6 of this Office Action]; and (ii) a second cooling medium line to convey cooling medium out of the roll via the interior of the shaft, the second cooling medium line (48) comprising a flow path, including conveying cooling medium between the outer surface of the first cooling medium line and the internal wall of the shaft to an outlet (44) [Page 2, lines 105-125].

With regards to claim 33, Hunt discloses wherein the internal wall of the elbow portion has a bend radius between the first length and the second length, as seen in Figure 1.

With regards to claim 34, Hunt discloses wherein the elbow portion includes mounting means (42) for mounting the elbow portion to the shaft.

With regards to claim 42, Hunt discloses wherein the cooling medium line is substantially cylindrical, as seen in Figure 2.

With regards to claim 43, Hunt discloses wherein the distal end of the shaft is sealed [Page 1, lines 95+].

With regards to claim 44, Hunt discloses wherein the proximal end of the shaft (49) has an annular flange against which the housing (32) abuts [page 2, lines 55-60].

With regards to claim 46, Hunt discloses including a delivery flow path that delivers cooling medium into the roll via the interior of the shaft and a return flow path for outflow of cooling medium via the interior of the shaft [Page 2, lines 105-125 and Figure 2].

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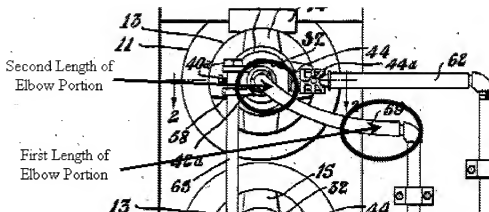


Figure 1 from Hunt US Patent 1,850,878

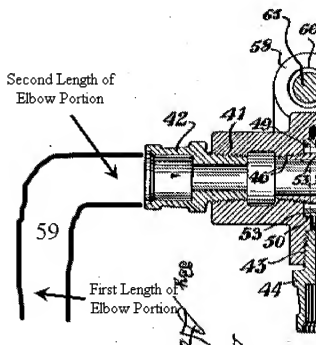


Figure 2 from Hunt US Patent 1,850,878

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 36-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunt in view of Jarrett (GB 2046386), previously cited.**

Hunt discloses an elbow portion (59) coupled at 42a and connected at the other end to piping (61), Page 2, lines 90-95. Jarrett is relied upon to teach that is it known to manufacture an arrangement for cooling a roll where the elbow portion (6) comprises internal and external threads (7, 8) in order to provide an attachment means (Figure 1). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a threaded connection between the inlet adapter (42) and elbow portion (59) of Hunt for the purpose of providing a water tight and sturdy connection since such a combination would yield predictable results. Ridges as required by claim 41 are read onto threads as shown.

Regarding claims 37 and 40 it would have been obvious to include an internal and external connection means in the first and second lengths of the Hunt elbow for the purpose of flexibility of connection (i.e. attachment to a pipe member having either an internal or external connection or differently sized piping), since the examiner takes official notice that providing an internal and an external thread on a pipe coupling is well known in the art.



**Claims 53 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunt in view of Ostertag (US Patent 4,922,739), previously cited.**

Hunt discloses that the cooling medium is forced under pressure through the system [Page 2, lines 105-110]. Hunt discloses the invention substantially as claimed except for wherein the shaft is provided with pressure release means for releasing internal pressure in the shaft when the internal pressure substantially exceeds a threshold pressure level. Ostertag is a roller tool with cooling means [Column 2, lines 25-27] relied upon to teach pressure release means for releasing internal pressure in the shaft when the internal pressure substantially exceeds a threshold pressure level [Column 2, lines 30-35; Column 4, lines 15-20; Column 5, lines 1-7 and Column 7, lines 14-20]. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Hunt with pressure release means in order to provide not only a cooling or lubrication supply unit, but to be utilized as the power supply to the rolling unit [Ostertag: Column 1, lines 68 - Column 2, lines 1-2].

***Allowable Subject Matter***

Claims 35, 45, 47-52, 54, 55, 57, and 58 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112 set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments with respect to claims 30-58 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment ("the external surface of the elongate surface of the elongate cooling medium line and an internal surface of the shaft defining a cooling medium flowpath out of the roll") necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TERESA BONK whose telephone number is (571)272-1901. The examiner can normally be reached on Monday-Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dana Ross can be reached on 571-272-4480. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dana Ross/  
Supervisory Patent Examiner, Art Unit 3725

Teresa M. Bonk  
Examiner  
Art Unit 3725